

24803

S/048/61/025/006/003/010
B117/B212

YNT-3 (UIT-3) installation...

Legend to Fig. 2: 1) microphoto-attachement MHP-2 (MNF-2); 2) metal microscope MBT(MVT); 3) movable container with quartz glass; 4) shield; 5) working chamber; 6) ceramic shield of the specimen; 7) specimen with thermocouple; 8) specimen holder with insulator; 9) bolt for transferring the mechanical load to the specimen; 10) forepump BH-461 (VN-461); 11) diffusion pump UBF-100 (TsVL-100); 12) vacuum cutoff valve; 13) steam-gauge tube JIT-2 (IT-2); 14) gas container with inert gas; 15) gas reducer; 16) gas cock; 17) needle valve; 18) cooling system for the specimen contacts; 19) cooling system for the quartz glass.

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S/181/63/005/002/024/051
B104/B102

AUTHORS: Predvoditelev, A. A., Spivak, G. V., Kotov, A. M.,
Yurasova, V. Ye., and Kushnir, F. F.

TITLE: Study of non-decorated dislocations in zinc single crystals
by ion bombardment

PERIODICAL: Fizika tverdogo tela, v. 5, no. 2, 1963, 542-545

TEXT: This paper is aimed to prove the possibility of detecting "virgin" dislocations by ion bombardment of single-crystal faces. Cylindrical zinc single crystals (2.5 mm in diameter, 50 mm high) were split along the (0001) plane at nitrogen temperature and the faces were bombarded with ions in flowing neon gas. Thin pieces of specimens that had been bombarded with ions on both (0001) planes showed the same etch patterns on both sides. Repeated etching of any one surface section produces no new etch patterns but intensifies those existing. The results from chemical etching and from ion bombardment are consistent. The most favorable experimental conditions are: neon pressure between $6 \cdot 10^{-2}$ and

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Study of non-decorated dislocations ...

S/181/63/005/002/024/051
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$3 \cdot 10^{-2}$ mm Hg, voltage between anode and specimen between 1.5 and 1.75 kv,
current density at the specimen 1.2 a/cm^2 , bombardment period,
approximately one hour. There are 5 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V.
Lomonosova (Moscow State University imeni M. V. Lomonosov) ✓

SUBMITTED: June 23, 1962 (initially)
August 29, 1962 (after revision)

Card 2/2

SPIVAK, G.V.; YURASOVA, V.Ye.; KUSHNIR, F.F.

UIT-r apparatus for fast etching of metals, semiconductors, and dielectrics by ionic bombardment. Izv. AN SSSR. Ser. fiz. 27 no.9:1188-1192 S '63. (MIRA 16:9)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. Lomonosova.

(Electronic apparatus and appliances) (Ion beams)

KUSHNIR, F. V.

PA 4/49T96

USSR/Radio Transmitters - Measurements May 48
Radio Waves - SHF

"Ultrashort-Wave FM Transmitter in Leningrad,"
F. V. Kushnir, Cand Tech Sci, 1 p

"Radio" No 5

Describes tests conducted by the Leningrad Dept,
Gen Sci Res Inst of Communications, to determine
the possibility of using ultrashort-wave (45 Mc)
transmission for large city radio networks. Names
scientists who are managing the tests. Photograph
of 4-section antenna installed on one of highest
buildings in Leningrad.

4/49T96

KUSHNIR, F. V.

USSR/Radio - Receivers, FM/AM

May 51

"FM/AM Receiver," F. V. Kushnir, Cand Tec Sci

"Radio" No 5, pp 37-40

Details 7-tube radio with AM and FM reception (150-410 and 560-1600 kc, 4.25-8.8, 8.2-18.4 and 42-60 Mc). Sensitivity for long, medium and ultrashort waves is 70-100 uv and for short waves, 150-200 uv. Image-channel selectivity is 30 db for long waves and 26 db for medium waves; skirt selectivity is 30 db. Receivers draws 70 w from the ac line.

182T109

WICHTEL, P.V.

"Amplitude-Modulated and Frequency Modulated Radio Receiver"
Radio No 6, Jun 1951 GMI 1097

KUSHNIR, F.

PA 195T92

USSR/Radio - Receivers

Sep 51

"More on the AM-FM Receiver," F. Kushnir

"Radio" No 9, pp 14-17

Supplies addnl information on the tuning of the
AM-FM receiver described in "Radio" No 5, 1951.

195T92

KUSHNIR, F. V.

Cand. in Tech. Sci., Chief of the LONIS Laboratory

"Radio Broadcasting at Ultra-Short Waves with Frequency Modulation," Vest. Svyazi,
No.11, pp8-10, 1953

Translation No. 420, 22 Jun 55

KUSHNIR, F.V., kandidat tekhnicheskikh nauk; BUZHANSKIY, A.B., inzhener;
ANYAZEV, A.D., inzhener; PIYUK, L.A., inzhener

"How a radio station for intradistrict communication should be organized."
Response to V.M. Rozov's article published in no. 1 of the journal for
1955. Vest. svyazi 15 no.7:13-15 J1 '55. (MIRA 8:8)

1. Nachal'nik laboratorii Leningradskogo otdeleniya nauchnoissledova-
tel'skogo instituta svyazi (for Kushnir).
(Radio stations, Short wave)

KUSHNIR, F.V.; SHIDLOVSKIY, I.A.

Exciter for the frequency-modulated ultrashortwave transmitter.
Elektrosvyaz' 10 no.2:22-25 F '56. (MLRA 9:6)
(Radio, Shertwave--Transmitters and transmission)

AUTHOR: Kushnir, F.V.

Sov/106-58-2-10/16

TITLE: Choice of Intermediate Frequency for USW Broadcast Receivers
(Vybor promezhutochnoy chastoty radioveshchatel'nykh UKV
priyemnikov)

PERIODICAL: 'Elektrosvyaz', 1958, nr 2, pp 71 - 73 (USSR).

ABSTRACT: The band used for f.m. broadcasting in the USSR extends from 66 to 73 Mc/s. It is shown how the standard i.f. of 8.4 Mc/s was arrived at. To avoid image interference the i.f. must be greater than half the total tuning range (3.5 Mc/s); to avoid reception of stations which differ in frequency from the wanted signal by an amount equal to the i.f., the latter must be greater than the total range width (7 Mc/s); to avoid interference from transmissions separated by one-half the i.f. from the wanted signal (arising from second harmonic) the i.f. must be greater than 5.7 Mc/s (assuming 12 db circuit rejection and a Q of 50 at 73 Mc/s); the lower the i.f. the less will be the interference from harmonics of the i.f. and in order that its seventh harmonic will be less than the lower end of the tuning range, the i.f. should be less than 9 Mc/s; a similar argument for sub-multiple interference with the i.f. requires the latter to be greater than 8 Mc/s (5 times a m.w. station); direct reception at i.f. is unlikely between 8 and 9 Mc/s; the worst

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Choice of Intermediate Frequency for USW Broadcast Receivers

Sov/106-58-2-10/16

hazard is interference due to beats between harmonics of signal and local oscillator and when this is taken into account the limits of choice are narrowed to 8.25 - 8.5 Mc/s. Having chosen 8.4 Mc/s, Figure 2 shows how interference is to be expected from television stations on Channels 1 to 4 (USSR). A table gives values of forbidden f.m. station frequencies together with the number of the TV channel responsible. There are 2 figures, 1 table.

SUBMITTED: July 5, 1957

Card 2/2 1. Television receivers--Performance 2. Frequency--Selection

6 (6), 9 (2)

06367

SOV/142-2-4-20/26

AUTHOR: Kushnir, F.V., Docent

TITLE: Dissertations for Acquiring the Scientific Degree of
Candidate of Sciences

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika,
1959, Vol 2, Nr 4, pp 495-496 (USSR)

ABSTRACT: The following dissertations for obtaining the scientific degree of a Candidate of Sciences were defended at the Leningradskiy elektrotekhnicheskiy institut svyazi imeni M.A. Bonch-Bruyevich (Leningrad Electrical Engineering Institute of Communications imeni M.A. Bonch-Bruyevich): A.I. Shipkov: "The Analysis of TV Systems by Colorimetry Methods" (Analiz televizionnoy sistemy metodami kolorimetrii); January 9, 1958; supervisor: Docent V.V. Odnol'ko; official opponents: Doctor of Technical Sciences, Professor B.I. Boldyrev, Candidate of Technical Sciences, Docent G.I. Byalik. The author found methods of developing the mathematical structure of the color TV theory. He solved a number of practi-

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SOV/142-2-4-20/26

Dissertations for Acquiring the Scientific Degree of Candidate of Sciences

cal problems of developing color TV systems on the basis of this theory. He established the mathematical relations between the information, which is to be transmitted in color TV, with the electrical signals, which are to be transmitted on the TV channel. Since color information is transmitted in color TV, the mathematical formulas were based on the mathematical structure of colorimetry - the science of measuring and expressing colors by numerical values. The methods of investigating color TV systems are presented in accordance with the physical nature of the information to be transmitted and the peculiarities of receiving this information with the human eye. The conclusions derived that additive colorimetry in combination with the general communication theory may be used as theoretical and mathematical foundation of color TV, similar to the harmonics analysis serving as theoretical and mathematical foundation of sound broadcasting. -

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SOV/142-2-4-20/26

Dissertations for Acquiring the Scientific Degree of Candidate of Sciences

Ya.A. Sobenin: "The Calculation of Polynomial Filters by the Effective Attenuation" (Raschet polinomial'nykh fil'trov po rabochemu zatukhaniyu); January 9, 1958; official opponents: Doctor of Technical Sciences V.N. Listov, Candidate of Technical Sciences, Docent A.V. Buynov. The known methods of electric circuit synthesis for calculation of polynomial filters are very complicated and bulky. The author presented formulas for calculating filters with elements without losses and tables of prototype elements with losses. The formulas and tables may be used for calculating filters by persons who are not familiar with the synthesis of electric circuits. This procedure is less time consuming and the filters obtained by it contain the least number of elements. - V.G. Frolushkin: "The Investigation of the Statistical Structure of Facsimile Messages" (Issledovaniye statisticheskoy struktury fototelegrafnykh soobshcheniy); January 15, 1958;

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SOV/142-2-4-20/26

Dissertations for Acquiring the Scientific Degree of Candidate of Sciences

Supervisor: Docent Zavarin; official opponents: Doctor of Technical Sciences, Professor M.P. Dolukhanov, Candidate of Technical Sciences, Docent B.Z. Kisel'gof. New methods were developed for investigating the statistical structure of a field of discrete random events. The application of these methods provided new information on the statistical structure of facsimile messages. It was possible to develop new coding principles and to obtain a considerable advantage in the signal volume. These results may be used for increasing the effectiveness of facsimile transmission. The methods developed and the analysis procedure for discrete random processes have a sufficiently general character and may be used for analogous investigations in the most different fields of engineering. - N.V. Reshetnikov: "Theoretical Premises of Building a Generator for Artificial Telephone Messages" (Teoreticheskiye osnovy postroyeniya generatora iskusstvennogo telefon-

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SOV/142-2-4-20/26

Dissertations for Acquiring the Scientific Degree of Candidate of Sciences

nogo soobshcheniya); June 26, 1958; supervisor: Candidate of Technical Sciences, Docent V.Ye. Rodzyanko; official opponents: Doctor of Technical Sciences, Professor Ye. V. Kitayev, Candidate of Technical Sciences, Docent Ye. A. Dyufur, Candidate of Technical Sciences, Docent I.Ye. Golubtsov. When developing new automatic telephone exchange systems it is necessary to determine the required number of connecting devices at a given load and known losses. The theoretical solution of this complicated problem requires inevitably experimental checking. The latter is more correctly performed by using the method of artificial telephone messages, which incorporates the so-called "graph machine". The principal unit of this machine is the artificial load generator, which generates the call current of a given intensity and distribution. The theoretical premises of building an artificial load generator are given, its actual construction and the result of the experimental

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SOV/142-2-4-20/26

Dissertations for Acquiring the Scientific Degree of Candidate of Sciences

investigations. The experimental data coincided adequately with theoretical data obtained according to A. N. Erlang's formula. - Ch.G. Postarnak: "Modulation-Phase Control of Colors When Reproducing Color TV Images" (Modulyatsionno-fazovoye upravleniye tsvetami pri vosproizvedenii tsvetnykh televizionnykh izobrazheniy); June 30, 1958; supervisor: Doctor of Technical Sciences, Professor P.V. Shmakov; official opponents: Doctor of Technical Sciences, Professor Ye.L. Orlovskiy and Candidate of Technical Sciences, Docent V.S. Babenko. A general, theoretical approach was made for investigating devices for reproduction of color images on a tube with a facsimile screen having modulation-phase control of the colors. Problems of combining the electronic and the mechanical raster were investigated theoretically and experimentally. Possibilities were indicated for building reproducing devices with modulation-phase control of colors without electrical

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Dissertations for Acquiring the Scientific Degree of Candidate of Sciences

connection of the electronic raster with the mechanical raster and in the presence of such a coupling. According to a colorimetric analysis and the peculiarities of three-dimensional mixing of colors, recommendations are given for selecting the basic parameters of devices for this purpose. Circuits are given for shaping a complicated modulating signal originating from the type of color signals of the given color TV system. - M.F. Sorokin: "Problems of the Dynamics of Automatic Level Control of Transmission on Long-Distance Cable Lines" (Voprosy dinamiki avtomaticheskogo regulirovaniya urovnya peredachi na kabel'nykh magistralyakh dal'ney svyazi); November 27, 1958; supervisor Doctor of Technical Sciences, Professor A.F. Beletskiy; official opponents: Doctor of Technical Sciences, Professor V.N. Listov, Candidate of Technical Sciences, Docent I.K. Bobrovskaya. The transient process in the network of single-frequency thermoelectric

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SOV/142-2-4-20/26

Dissertations For Acquiring the Scientific Degree of Candidate of Sciences

control systems was investigated under consideration of the amplification of the control current envelope. The parameters of a closed automatic gain control system were established. An approximated method was used for finding the analytic dependences between the parameters of a single system and the dynamic indexes expressing the effectiveness of control in a network of single-type control devices. Under certain conditions, these dependences may be used for parameter synthesis of a single thermoelectric automatic gain control systems with given dynamic indexes expressing the effectiveness of control in a network with single-type control devices. - M.M. Ben'o: "Distortions in the Synchronous Detection of a Compatible Color TV System and Its Correction" (Iskazheniya pri sinkhronnom detektirovani v odnovremennoy sisteme tsvetnogo televideniya i ikh korrektsiya); December 25, 1958; supervisor: Doctor of Technical Sciences, Professor P.V. Shmakov;

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SOV/142-2-4-20/26

Dissertations for Acquiring the Scientific Degree of Candidate of Sciences

official opponents: Doctor of Technical Sciences, Professor Ye.L. Orlovskiy and Candidate of Technical Sciences, Docent G.I. Byalik. Some problems, connected with asynchronous detection in compatible color TV systems are discussed: coding and decoding of the color information and the determination of the optimum channel parameters from the viewpoint of using the frequency spectrum and simplifying the receivers; converting the spectrums with synchronous detecting, distortions, and their perception; theoretical and experimental investigations of methods and circuits for correcting amplitude, phase, and cross distortions and their measurements. New designs of synchronous detectors are presented for decoding color information in color TV sets, distinguished by simplicity and operational reliability.

Card 9/9

KUSHNIR, F.V., otv.red.; GAL'CHINSKAYA, V.V., tekhn.red.

[Papers of the conference on science and technology of the
Leningrad Institute of Electric Communications] Trudy nauchno-
tekhnicheskoi konferentsii LEIS. Leningrad, No.1, 1960. 129 p.
(MIRA 13:11)

1. Leningrad. Elektrotekhnicheskii institut svyazi.
(Telephone, Automatic)

KUSHNIR, Flor Vasil'yevich; ROGOVENKO, Semen Sergeyevich; GAL'CHINSKAYA,
V.V., tekhn. red.

[Radio measuring devices; a manual] Radioizmeritel'nye pribory;
uchebnoe posobie. Leningrad, Leningr. elektrotekhn. in-t
svyazi, 1961. 195 p. (MIRA 15:4)
(Radio measurements)

KUSHNIR, F.V., dotsent

Defense of dissertations in the M.A.Bonch-Bruевич Institute of Electrical
Communication in Leningrad. Izv. vys. ucheb. zav.; radiotekh. 6 no.1:
98-102 Ja-F '63. (MIRA 16:3)
(Bibliography--Electric engineering)

KUSHNIR, F.V.

Defense of dissertations in the M.A.Bonch-Bruevich Institute of
Electrical Communications in Leningrad. Izv. vys. ucheb. zav.;
radiotekh. 6 no.3:323-324 My-Je '63. (MIRA 16:9)
(Bibliography--Electric engineering)

KUSHNIR, F.V., ovt.red.; GAVRILOV, A.F., zasluzhennyy deyatel' nauki i tekhniki, prof., red.; DOZUKHANOV, M.P., prof., red.; YEGOROV, K.P., dots., red.; ZHDANOV, I.M., prof., red.; ZELIACH, E.V., prof., red.; ZELIGER, N.B., prof., red.; LEBEDEV, K.N., dots., red.; ODNOL'KO, V.V., dots., red.; ROMANOVSKIY, V.B. [deceased], dots., red.; FOMICHENOV, I.M., dots., red.; SHINIBEROV, P.Ya., dots., red.; SEMAKOV, P.V., zasluzhennyy deyatel' nauki i tekhniki prof., red.; GAL'CHINSKAYA, V.V., tekhn.red.

[Structure and reactivity of organic compounds] Voprosy stroeniya i reaktsionnoi sposobnosti organicheskikh soedinenii. Leningrad, 1959. 372 p. (Leningrad. Elektrotekhnicheskii institut svyazi. Trudy, no.8).

(MIRA 13:11)

(Chemistry, Organic)

(Chemical structure)

KUSHNIR, G.T., elektrobmotchik; KUSHNIR, V.G., elektrobmotchik

Sealing of the bearing settings in the covers of electric motors
using an electric spark method. Energetik 13 no.1:29 Ja '65.

(MIRA 18:3)

AUTHOR:

Kushnir, G.V., Engineer

TITLE:

Charts of Efficient Cutting Conditions (Karty proizvoditel'nykh rezhimov rezaniya)

SOV 117-58-4-5/21

PERIODICAL:

Mashinostroitel', 1958, Nr 4, pp 17-24 (USSR)

ABSTRACT:

The existing methods of selecting machine tool operation conditions for different work take much time and do not obviate the fact that different technologists prescribe different or even contradictory conditions for machining similar parts. Besides this, the technologists have to use many tables kept in different places, which causes an additional waste of time. To assure correct selection of cutting conditions in a minimum time, staff members of the Elektrostal' Heavy Machine-Building Plant's technological laboratory, A.I. Gorelov, G.B. Appel'berg, B.Sh. Aganovskiy and L.M. Polyakov worked out separate cutting-condition charts for lathes, vertical boring and turning-machine work, milling and drilling, and for every machine tool, and for groups of similar machine tools. Six such charts are published in this article and contain correction coefficients for changing the cutting conditions, thereby enabling technologists, as well as machine tool operators (directly at the machine), to decide on the proper machine setting for a given case. Such charts are in

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Charts of Efficient Cutting-Conditions

SOV-117-58-4-5/21

in use at the plant and recommended for other plants in the machine-building industry. Work on charts for reaming and gear-cutting operations is also under way. There are 6 charts.

ASSOCIATION: Elektrostal'skiy zavod tyazhelogo mashinostroyeniya (Elektrostal' Heavy Machine-building Plant)

1. Machine shop practice--USSR
2. Metals--Machining

Card 2/2

SOV/112-57-6-13152

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 6, p 215 (USSR)

AUTHOR: Kushnir, I. A.,

TITLE: Individual Selenium Rectifiers for Electrolyzers
(Individual'nyye selenovyye vypryamiteli dlya gal'vanicheskikh vann)

PERIODICAL: Sb. rats. predl. M-vo elektrotekhn. prom-sti SSSR, 1955, Nr 53,
pp 3-4

ABSTRACT: A short description and a circuit diagram of the rectifiers built at the "Tochelektropribor" Plant on the suggestions of "Sbornik ratsionalizatorskikh predlozheniy" (Collection of Efficiency Suggestions), TsBTI MEP, Nr 25, 1953. Advantages of substituting rectifiers for motor-generators serving as an electrolyzer supply are noted.

E.N.U.

Card 1/1

TIVANOV, A.A.; KUSHNIR, I.I., redaktor; MANINA, M.P., tekhnicheskiiy redaktor

[Physical culture for elderly persons] Fizicheskaya kul'tura v pozhilom vozraste. Moskva, Gos.izd-vo "Fizkul'tura i sport," 1955.
111 p. (MIRA 9:1)

(Physical education and training)

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7,
p 179 (USSR) 14-57-7-15338

AUTHOR: Kushnir, I. I.

TITLE: Socialistic Transformation of Novgorod's Architecture
(Sotsialisticheskiye preobrazovaniya v arkhitekture
Novgoroda)

PERIODICAL: V sb: 15-ya nauchn. konferentsiya Leningr. inzh.-
stroit. in-ta. Leningrad, 1957, pp 166-170

ABSTRACT: Bibliographic entry
Card 1/1

KUSHNIR, I., arkhitektor.

Landscaping in Novgorod. Zhil-kom. khoz. 7 no.5:9-10 '57.

(Novgorod--Landscape gardening)

(MLRA 10:6)

KUSHNIR, I., arkhitektor (g.Novgorod)

Eleven hundredth anniversary of the city of Novgorod. Zhil.-
kom.khoz. 9 no.7:3-4 '59. (HIRA 12:11)
(Novgorod--Description)

KUSHNIR, I. H.

Kushnir, I. H. "On the Lyuben'-Velikiy Spa", (In the Ukrainian SSR), Vracheb. delo, No. 4, paragraphs 353-54.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

KUSHNIR, I.M.

Analyzing causes of death from traumas of the spine and the spinal cord. Fiziol.zhur. Ukr. 4 no.5:705-706 S-0 '58 (MIRA 11:11)

1. Kiyevskaya gorodskaya bol'nitsa, klinicheskiy otdel nervnykh bolezney.

(SPINE--WOUNDS AND INJURIES)

ROSENBERG, L.M.; ROSENBERG, L.M.; ROSENBERG, L.M.; ROSENBERG, L.M.; ROSENBERG, L.M.; ROSENBERG, L.M.

Cyclic variability of conception and gestation termination
reaction in pregnancy. Dokl. Akad. Nauk SSSR. 1972. no. 1:65-72
1973.

(MIRA 18:10)

1. In vrachebno-maternoy shchity (mammoth) - V.G. Vozna. argun)
Sakrylni'skey zheleznyy dorogi i kafedry fiziologii (ravn-
nyashchily - dozent V.A. Koslov) Chitinskogo meditsinskogo instituta.

KUSHNIR, I.M.

Complete rupture of the uterus during pregnancy and labor,
concluding with the birth of living infants and recovery
of the mothers (5 cases). Akush.i gin. 36 no.4:114-117
Jl-Ag '60.

(UTERUS—RUPTURE)

(PREGNANCY, COMPLICATIONS OF)

(MIRA 13:12)

KUSHNIR, I.M.; DOLGOPYATOVA, M.N.; SABO, V.Ye.; SURINA, V.F.

Subcutaneous emphysema as a complication in childbirth. Vo.
okh.mat.i det. 8 no.3:82-83 Mr '63. (MIRA 16:5)

1. Iz vrachebno-sanitarnoy sluzhby Zabaykal'skoy zheleznoy
dorogi (nachal'nik V.G. Yegiazaryan, glavnyy akusher-ginekolog
I.M. Kushnir).

(EMPHYSEMA)

(LABOR, COMPLICATED)

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SOV/148-59-1-11/19

AUTHORS: Gorelik, S.S., Candidate of Technical Sciences, Docent; Bublik, V.T., and Kushnir, I.P., Engineers

TITLE: The Actual Temperature of the Beginning of Recrystallization in Aging Alloys (Ob istinnoy temperature nachala rekristallizatsii stareyushchikh splavov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavodeniye - Chernaya metallurgiya, 1959, Nr 1, pp 97-104 (USSR)

ABSTRACT: Investigations were carried out for the purpose of determining the cause of high temperature and the actual temperature of beginning recrystallization in aging alloys such as Cu-Be; Cu-Sn; Cu-Ni-Co; Fe-W; Ni-Cr; Ni-Cr-Al-Ti, etc. It was proved by experiments that diffusion processes had only a slight effect on relaxation stresses and on the rise of the t_{γ} temperature (Temperature of the beginning of recrystallization) and could not cause a sharp rise of the temperature of recrystallization as observed in the transition from single-phase to aging alloys. The hypothesis that the actual t_{γ} of aging alloys was lower than the t_{γ} determined by conventional methods, but that its detection was concealed by decomposition,

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SOV/148-59-1-11/19

The Actual Temperature of the Beginning of Recrystallization in Aging Alloys

was confirmed with the use of direct and indirect radiographic and metallographic methods, the most valuable of which were 1) investigation and correlation of fine structure changes; 2) the microbundle method; 3) analysis of texture dispersion and 4) the method of stepwise heating. It was stated that in aging alloys a difference existed between the actual temperature of recrystallization and the considerably higher temperature of its detection, which corresponded to the beginning of the intensive growth of recrystallization centers. The actual beginning of recrystallization in oversaturated solid solutions occurred simultaneously with the incoherent decomposition of the solid solution. The actual $t_{\tilde{Z}}$ depends on the character of decomposition and can be lower, equal or higher than $t_{\tilde{Z}}$ of the single-phase alloys of limiting concentration.

There are 5 graphs, 3 tables, 2 sets of microphotos and 4 references, 3 of which are Soviet and 1 English.

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SOV/148-59-1-11/19

The Actual Temperature of the Beginning of Recrystallization in Aging Alloys

ASSOCIATION: Moskovskiy institut stali (Moscow Institute of Steel)

SUBMITTED: August 26, 1958

Card 3/3

L 22089-66 EWT(m)/T/EWP(t) IJP(c) JD

ACC NR: AP6012941

SOURCE CODE: UR/0070/65/010/001/0087/0091

AUTHOR: Kushnir, I. P.; Mikhaylova, L. K.; Osip'yan, Yu. A. 450

ORG: Institute of the Physics of Metals, TsNIICHM (Institut metallofiziki TsNIICHM);
Institute of Solid State Physics, AN SSSR (Institut fiziki tverdogo tela AN SSSR)

TITLE: Effect of carbon on the dislocation structure of iron microcrystals

SOURCE: Kristallografiya, v. 10, no. 1, 1965, 87-91 16-21

TOPIC TAGS: plastic deformation, metal crystal, crystal lattice dislocation, carbon, iron, crystal growing, hardness, etched crystal

ABSTRACT: This paper makes use of selective etching to investigate the change in the dislocation rosettes in iron microcrystals resulting from carburization. The data may be explained in terms of the effect that carbon has on transverse slip of the dislocations in α -Fe. For a rosette to be formed, dislocations must be produced at the point where a local load is acting, after which they move and multiply: i.e., all the elementary processes occur that take place during plastic deformation. Thus, an analysis of the way the dislocations are arranged in a rosette gives at least a qualitative explanation of a number of features of the development of plastic deformation and strengthening of crystals.

In iron, electron microscope studies show that a large tendency of the dislocations toward transverse slip is a characteristic feature of plastic deformation. This is due to the fact that in the body-centered crystal lattice

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UDC: 548.4

L 22089-66

ACC NR: AP6012941

of α -Fe there is a large number of possible slip planes, while the dislocations themselves are narrow and easily move from one slip plane to the other. Observations show that intersection and interaction between the dislocations result in the formation of very nonuniform structures, which act as a barrier to the motion of other dislocations but may be active sources of dislocations.

Iron microcrystals were grown from the gaseous phase by reducing iron chloride with hydrogen at 730--750° C. Carbon was introduced into the microcrystals either by keeping the samples in a stream of H₂ containing heptane vapor for 40 minutes at 550--600° C or in Co at 800° C. The methods gave ~0.007 and 0.02% carbon respectively. Microhardness testing equipment was used for local loading of the microcrystals. The dislocation structures of the deformed microcrystals were observed by etching with a mixture of alcohol solutions of picric and nitric acid at room temperature.

After local loading, the microcrystals show definite dislocation rosettes, the rays of which always extend along definite crystallographic directions, which are the traces of the intersection of the slip planes at the surface of the crystal.

With carbon present it is possible to observe rosettes on both the cubic and the {110} faces of the microcrystals. On the {110} faces, the rays of the rosette are predominately along the <111> directions (slip planes {110}, {112}, and {123}). On the {001} faces, not always, but very often, the rays of the rosette extend along the <210> directions, corresponding to the slip planes {211} and {123}, making it necessary to eliminate the {110} plane from the number of possible slip planes in the crystals.

Card 2/3

L 22089-66

ACC NR: AP6012941

Impurities added to a material, by depositing on the dislocation lines, may fix the lines and prevent them from moving, thus strengthening the material. But by being adsorbed at dislocations, impurities may have a considerable effect on such microscopic characteristics of the dislocations as their width, tendency toward transverse slip, etc., and thus substantially change the distribution, the nature of the motion, and the interaction between dislocations during plastic deformation. In any particular case, depending on the conditions for plastic deformation and the state of the material, an impurity may exert either a strengthening or a weakening effect on the crystal. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 20, 11 / SUBM DATE: 14Jul64 / ORIG REF: 008 / OTH REF: 006

Card 3/3 BLG

OSIPYAN, Yu. A.; KUSHNIR, I. P.

"A study of the influence of carbon on the mechanical properties and dislocation structure of iron whiskers."

paper submitted for Intl Conf on Fracture, Sendai, Japan, 13-16 Sep 65.

Inst. Solid State Physics and Cent. Inst Ferrous Metallurgy.

KARDONSKIY, V.M.; KUSHNIR, I.P.

X-ray diffraction microscopy; survey. Zav. lab. 27 no.6:705-711
'61. (MIRA 14:6)

(X rays--Diffraction) (X-ray microscope)

24,7500

S/070/62/007/002/009/022
E132/E160

AUTHOR: Kushnir, I.P.

TITLE: The observation of dislocations in microcrystals
of iron by etching

PERIODICAL: Kristallografiya, v.7, no.2, 1962, 247-251

TEXT: Small crystals of pure iron were grown from the gas phase by the reduction of iron chloride vapour by H_2 . They were about 20-40 μ thick and 100-200 μ long and wide. The surface was usually (100). They were etched with weak alcoholic solutions of picric and nitric acids. Some crystals show etch figures, sometimes at random and sometimes along lines. For very thin plates corresponding etch pits could be seen on both sides. The etch pits mark the emergence of dislocations occurring in growth but fresh dislocations produced by working after growth can also be revealed. The movement of separate dislocations can be shown by re-etching. There are 5 figures.

X

Card 1/2

The observation of dislocations ...

S/070/62/007/002/009/022
E132/E160

ASSOCIATION: Institut metallovedeniya i fiziki metallov
(Institute of Science of Metals and Physics of
Metals)

Tsentral'nogo nauchno-issledovatel'skogo instituta
chernoy metallurgii im. I.P. Bardina
(Central Scientific Research Institute for Ferrous
Metallurgy imeni I.P. Bardin)

SUBMITTED: April 15, 1961

Card 2/2

OSIPYAN, Yu. A.; KUSHNIR, I. P.

"A study of the influence of carbon on the mechanical properties and dislocation structure of iron whiskers."

report submitted for Intl Conf on Fracture, Sendai, Japan, 12-17 Sep 65.

Inst Solid State Physics & Cent Inst Ferrous Metallurgy, USSR.

USSR / Cultivated Plants. Commercial. Oil-Bearing. M-5
Sugar-Bearing.

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25151

Author : Kushnir, L. G.

Inst : ~~Not given~~

Title : The Economic Efficiency of Using Bees to Pollinate
the Sunflower

Orig Pub: Pchelovodstvo, 1957, No 7, 23-27

Abstract: Research conducted by the department of bee-raising
of Moscow Agricultural Academy in the "Zavet Il'icha"
kolkhoz in Mal'chevskiy Rayon of Kamenskaya Oblast'
shows the good honey-bearing capacity of sunflowers
and the high degree of practicality in bee-keeping.
The cost of 1 centner of honey does not go above
1200 rubles, although the yield boost of seeds from
bee pollination averages 2 centners per ha. -- A.S.

Card 1/1

COUNTRY : USSR
 CATEGORY : Cultivated Plants. Industrial, Oleiferous, Sugar. M
 RES. JOUR. : RZhBiol., No. 23 1958, No. 10, 780
 AUTHOR : Kushnir, L. G.
 INST. : Moscow Agricultural Academy imeni K. A. Timiryazev
 TITLE : Comparative Effectiveness of the Pollination of Sunflower
 by Different Methods.
 ORIG. PUB. : Dokl. Mosk. s.-kh. akad. im. K. A. Timiryazeva,
 1957, vol. 30, no. 2, 321-326
 ABSTRACT : A decrease in the number of wild insect pollinators in-
 creases the value of bees in the pollination of sunflower.
 At kolkhos "Zvezd Il'cha" in Kal'chevskiy rayon in Kamen-
 skaya oblast', an average of 1637 grams of seeds were ob-
 tained from two plots of 8 m² each, located at the dis-
 tance of 400 meters from apiaries, and from the plot 2000
 meters distant - 1373 grams. A study of the effect on the
 yield of this crop, of the pollination of the flowers with

CARD: 1/2

105

COUNTRY :
CATEGORY :

M

ABS. JOUR. : RzhBiol., No. 23 1958, No. 104780

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : a mitten made of rabbit skin, carried out on 105 plants (7 groups of 15 plants each), showed that increases in the number of pollinations raises the weight of the seeds in the calathium, the setting of the seeds and decreases the amount of husk. Utilization of bees for pollination is more effective and economically more profitable than hand pollination.

Abstractor's note: Experiments were conducted on plots 8 square meters in size, without replications. — O. P. Flyusnina

CARD: 2/2

KUSHNIR, L.G.

Practical design of minor water-conducting installation taking
accumulation in consideration. Avt.dor. 26 no.9:25 S '63.
(MIRA 16:10)

KUSHNIR, L. G., Candidate Agric Sci (diss) -- "The comparative effectiveness of pollinating sunflowers by hand and using honey bees". Moscow, 1959. 23 pp (Moscow Order of Lenin Agric Acad im K. A. Timiryazov), 110 copies (KL, No 23, 1959, 169)

ZAPREYEV, S., inzhener; KUSHNIR, M., inzhener.

Working wide pitching seams without horizontal slicing. Mast. ugl.
6 no.1:11-12 Ja '57. (MLRA 10:4)
(Kuznetsk Basin--Coal mines and mining)

KUSHNIR, M., inzhener; TKACHENKO, N., inzhener.

Group arrangement of grain dryers of the All-Union Scientific
Research Institute of Agricultural Machine Building at grain
procurement stations of Akmolinsk Province. Muk.-elev.prom. 22
no.1:9-11 Ja '56. (MLRA 9:5)
(Akmolinsk Province--Grain--Drying)

BRONSHTEYN, G., inzhener; ~~KUSHNIR, A.~~, inzhener.

Use of a dismountable sectional conveyer in sorting corn. Muk.-elev.
prom. 22 no. 9:29 S '56. (MLRA 10:8)

1. Krymskaya kontora Zagotzerno.
(Conveying machinery)
(Corn handling)

KUSHNIR, M.

BRONSHTEYN, G., inzhener; KUSHNIR, M., inzhener; BELASH, N.

Sizing corn seeds. Muk.elev.prom. 23 no.9:24-25 S '57. (MIRA 10:11)

1. Krymskoye oblastnoye upravleniya khleboproduktov (for Bronshteyn, Kushnir). 2. Zamestitel' direktora po kachestvu Sukhovolyanskogo khlebopriyemnogo punkta Khmel'nitskoy oblasti (for Belash).
(Corn (Maize))

KUSHNIR, M., inzh.; BRONSHTEYN, G., inzh.

Direct grain delivery from the combine to the elevator in
Crimean Province. Muk.-elev.prom. 25 no.7:5 J1 '59.
(MIRA 12:11)

1. Krymskoye upravleniye khleboproduktov.
(Crimea--Grain)

BRONSHTEYN, G., inzh.; KUSHNIR, M., inzh.

Using ventilators for removing impurities from a stream of grain. Muk.-elev.prom. 25 no.9:7 S '59. (MIRA 12:12)

1. Krymskoye oblastnoye upravleniye khleboproduktov.
(Grain--Cleaning)

KUSHNIR, M., inzh.; BRONSHTEYN, G.

We increased the holding capacity of the grain elevator. Muk.-
elev.prom. 26 no.7:10 JI '60. (MIRA 13:8)

1. Krymskoye upravleniye khleboproduktov.
(Grain elevators)

KUSHNIR, M., inzh. (Simferopol', Krym); BRONSHTEYN, G., inzh.
(Simferopol', Krym)

Precast reinforced concrete funnel for the discharge
of grain. Muk.-elev. prom. 28 no.7:27 JI '62. (MIRA 15:9)
(Crimoa--Grain handling)

L 20769-65 AMD

ACCESSION NR: AR4045780

S/0299/64/000/013/M019/M019

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 13M122

AUTHOR: Kushnir, M. B.; Plotnikov, N. A.

TITLE: Homoplastic transplantation of teeth in man 6

CITED SOURCE: Sb. 3 Vses. konferentsiya po peresadke tkaney i organov, 1963. Yerevan, 1963, 359-360

TOPIC TAGS: dog, human, tooth, cadaver, lyophilization, Homotransplantation

TRANSLATION: Following the extraction of an intact tooth, adult dogs received a tooth transplant taken from dog cadavers. Teeth preserved for 24 hrs by cooling to +4° were transplanted in 5 dogs. Sinus resorption of tooth tissues occurred in all animals. Teeth preserved for a prolonged period by freezing to -10° and dried in a vacuum were transplanted in 10 dogs. In all cases transplant accretion took place. Teeth with a trochlear bone preserved under the same lyophilization conditions were transplanted in 5 dogs. Positive

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ACCESSION NR: AR4045780

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results were found in 2 cases. Homotransplantation of 16 teeth was performed on 14 patients ages 14-45 yrs. Teeth extracted for orthodontic purposes and preserved by lyophilization were transplanted. Thirteen transplants proved successful. A roentgenological check made 2-13 mos after transplantation showed good accretion.

SUB CODE: LS

ENCL: 00

Card 2/2

Handwritten: M.G.

KUSHNIR, M.G., kand.tekhn.nauk.

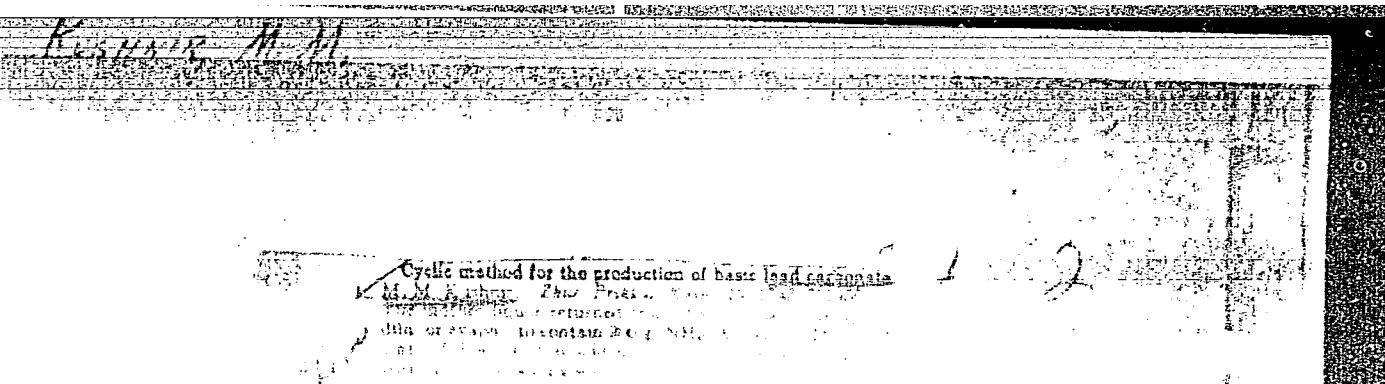
Shape of bank slopes on navigable canals. Rech.transp. 16 no.12:
30-31 D '57. (MIRA 11:1)

(Canals)

PAUL', V.P.; YANKOVSKIY, O.A., starshiy nauchnyy sotrudnik; KUSHNIR, M.M.

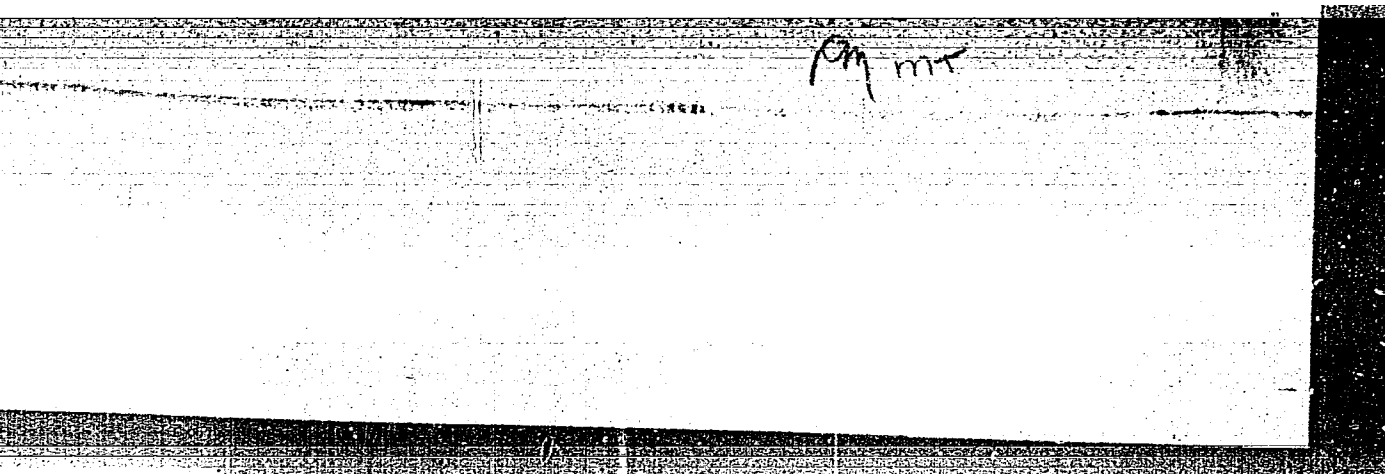
Comprehensive and continuous organization of the construction of
railroads. Transp. stroi. 14. no.2:3-6 F '64. (MIRA 17:4)

1. Rukovoditel' laboratorii organizatsii transportnogo stroitel'stva
Vsesoyuznogo nauchno-issledovatel'skogo instituta transportnogo
stroitel'stva Ministerstva transportnogo stroitel'stva (for Paul').
2. Glavnyy inzh. upravleniya Karagandastroypu' (for Kushnir).



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CIA-RDP86-00513R000927830001-1



APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927830001-1"

SOV/112-58-2-3517

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 260 (USSR)

AUTHOR: Kushnir, M. M.

TITLE: Regeneration and Utilization of the Spent Electrolyte of Alkali Storage Batteries (Regeneratsiya i utilizatsiya otrabotannogo elektrolita shchelochnykh akkumulyatorov)

PERIODICAL: Ugol' Ukrainy, 1957, Nr 5, pp 45-46

ABSTRACT: A method is suggested for regenerating contaminated and carbonized alkali-battery electrolyte. It is based on salting out carbonate by concentrating the alkalis and by a coprecipitation of silicic acid, aluminum, and iron with calcium hydroxide. Five kilograms of the latter ingredient are used in each m³ of solution. Upon settling, the solution is decanted or strained, and condensed to 1.30-1.28 density. A higher alkali concentration is obtained by the addition of solid sodium hydroxide. As a result of concentration and cooling to 20° C, almost all of the water is removed from the solution; the final water content in the salt part of the solution is below 0.8%. The solution, purified by the above

Card 1/2

SOV/112-58-2-3517

Regeneration and Utilization of the Spent Electrolyte of Alkali Storage Batteries

method, is brought to the necessary density and the dosage is ensured by lithium hydroxide. A new method of waste-electrolyte utilization is also suggested by the author: in the preparation of fresh electrolyte, the waste electrolyte is brought to a density of 1.40 by adding solid or concentrated 70% alkali to it, which results in the salting out of sodium carbonate. Then, the solution is diluted with water to the necessary density and the dosage ensured by lithium hydroxide. The above method ensures an electrolyte quality meeting existent standards.

L. Z. Kh.

Card 2/2

USCOM-DC-60480

AUS 14/15, M. M.

AUTHOR: Kushnir M.M.

73-2-18/22

TITLE: Coprecipitation of iron with calcium hydroxide in solutions of caustic alkalis. (Soosazhdeniye zheleza s gidrookis'yu kal'tsiya v rastvorakh yedkikh shchelochey).

PERIODICAL: "Ukrainskiy Khimicheskiy Zhurnal" (Ukrainian Journal of Chemistry), Vol.23, No.2, March-April, 1957, pp.251-256 (USSR).

ABSTRACT: No economically advantageous and reliable methods have been described so far, concerning the separation of caustic alkalis from iron with suitable adsorbents. The separation of sodium hydroxide from iron (I) with the aid of strontium compounds is not entirely satisfactory because strontium compounds are uneconomical with regard to cost, they are toxic, the strontium hydroxides are easily soluble in caustic alkali solutions. In the present experiment iron was coprecipitated with calcium hydroxide in caustic alkali solutions in order to achieve their separation. Calcium salts as well as oxides and hydroxides of calcium were used. The iron content was found to change only slightly when slaked lime was added to a caustic alkali solution. Commercial solutions of NaOH and KOH (550 g/l concentration) were used in the experiments as

Card 1/3

73-2-18/22

Coprecipitation of iron with calcium hydroxide in solutions of caustic alkalis. (Cont.)

well as $\text{Ba}(\text{OH})_2$. It was found that the iron content became constant (0.02 g/l) after 3 months and coarse disperse particles of $\text{Fe}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ were precipitated. The alkali was filtered (through filters and ultrafilters, the pore-diameter of which is known) and it was observed that the most of the iron (which represents the impurities in the alkali) enters into the $\text{Fe}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ particles which have a diameter exceeding 100 μ . About 23% of the iron is found in the $\text{Fe}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ particles of colloidal dimensions. Only about 2% Fe occurs in the molecular- and ion-disperse systems. The influence of the precipitated $\text{Ca}(\text{OH})_2$ on the coprecipitation of iron in a caustic alkali solution is tabulated (Table 1.). The coprecipitation of iron with calcium hydroxide formed from CaO in a NaOH solution (Table 2) and with calcium hydroxide from CaO in a $\text{Ba}(\text{OH})_2$ solution (Table 3) are given. During adsorption the log curve should represent a linear function of the parameters. Table 2 and the diagram show that experimental

Card 2/3

73-2-18/22

Coprecipitation of iron with calcium hydroxide in solutions of caustic alkalis. (Cont.)

results under the above conditions conform with Freindlikh's adsorption isotherms. This indicates the adsorptive character of the process. Tables 4 and 5 show that the coprecipitation of iron decreases with increasing Fe-content in the starting solution of caustic alkalis. The specific adsorption increases. Data in Table 6 prove the usefulness of separation of alkalis in 2 stages. The influence of agitation of the KOH solution on the coprecipitation of iron is shown in Table 7. The obtained results are of special importance during the purification of caustic alkalis in industry.

There are 7 tables, 1 diagram and 8 references, 5 of which are Slavic.

ASSOCIATION: Stalin Plant for Chemical Reagents. (Stalinskiy Zavod Khimicheskikh Reaktivov).

SUBMITTED: May 24, 1956.

AVAILABLE: Library of Congress

Card 3/3

ALCANTARA M.M.
KUSHNIR, M.M.

State of iron compounds in solutions of caustic alkalies. Ukr.khim.
zhur. 23 no.6:813-816 '57. (MIRA 11:1)

1.Zavod khimicheskikh reaktivov, Stalino.
(Iron compounds) (Alkalies)

AUSCH, K.M.

Cyclic method for the production of basic lead carbonate. Zhur.
Prikl. khim. 29 no.11:1746-1747 N '57. (MLBA 10:6)
(Lead compounds)

KUSHNIR, M.M.

Preparation of pure barium salts. ²¹ M. M. Kushnir.
Zhur. Priklad. Khim., 30, 1115-16 (1957). — To a soln. contg.
150-6 g/l. tech. Ba(OH)₂ was added 10-12 kg./cu.m.
tech. CaO, the temp. being maintained below 70°. The
Fe content in the Ba(OH)₂ was thus reduced to 0.001-
0.0013 g./l. With pure CaO it was reduced to 0.003%.
Ca(OH)₂ could not be substituted for CaO. The chlorides
in tech. Ba(OH)₂ were reduced to 0.001-0.0012% by re-
crystn. and washing with a soln. of freshly prepd. Ba(OH)₂.
7H₂O. The mother liquor and washings were carbonated
to give tech. BaCO₃. Pure BaCO₃ was prepd. by carbonat-
ing of pure Ba(OH)₂ seeded with pure BaCO₃. L. R.

4
1-4E4j

47

KUSHNIR, M.M.

Purification of industrial salt solutions from iron by precipitated
manganese dioxide. Ukr. khim. zhur. 24 no.4:526-527 '58.

(MIRA 11:10)

(Solution (Chemistry)) (Iron) (Manganese oxides)

5(1)

AUTHOR: Kushnir, M. M.

SOV/64-59-3-20/24

TITLE: Production of Lead Acetate Containing Little Iron
(Poluchenije uksusnokislogo svintsa, bednogo zhelezom)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 3, p 85 (USSR)

ABSTRACT: A method is suggested for purifying lead salts, based on the fact that Fe^{3+} ions form complex compounds with salicylic acid (I), sulphosalicylic acid and rhodanides. Preliminary experiments (Table) showed that the best results could be achieved with (I). The principle of the suggested industrial working method is the following one: technical litharge is dissolved at 80° in a 20% solution of technical acetic acid to a pH = 5.5. A preliminary purification is carried out by means of an addition of activated coal BAU. After the filtration a saturated (I) solution is added, 0.2 per kg of the product. The separation of the iron compound from the excess (I) is again carried out by means of activated coal. The solution thus purified contains only $5 \cdot 10^{-6}\%$ of iron. There are 1 table and 7 references, 6 of which are Soviet.

Card 1/1

KUSHNIR, M.M.

Complete automatic control of the retort section. Gidroliz, i
lesokhim.prom. 12 no.8:27-28 '59. (MIRA 13:4)

1. Giproleskhim.

(Asha--Wood-using industries--Equipment and supplies)
(Automatic control)

KUSHNIR, M.M.

Furacillin in the prevention and treatment of rabbits in coccidiosis. Veterinariia 36 no.7:49 J1 '59. (MIRA 12:10)

1. Zaveduyushchiy Dovhyshskoy mezhrayonnoy vethaklaboratoriyey Zhitomirskoy oblasti.
(Coccidiosis) (Furacillin)

KUSHNIR, M.M.

Synthesis of ferricyanide salts. Khim. prom. no. 7:601 O-N '60.
(MIRA 13:12)
(Ferricyanides)

KUSHNIR, M.M.

Preparation of lead sulfide. Zhur.VKHO 6 no.5:585-586 '61.
(MIRA 14:10)
(Lead sulfide)

KUSHNIR, M.M.

Removal of iron from barium compounds. Ukr.khim. zhur. 27
no.4:542-543 '61. (MIRA 14:7)

1. Stalinskiy zavod khimicheskikh reaktivov.
(Barium compounds) (Iron)

MARGOLIN, M. Ya.[Marholin, M. IA.]; SKAZHENNIK, O. K.; KUSHNIR, M. M.

Continuous method of production of a potassium-butyl flotation agent. Khim. prom.[Ukr.] no.1:30-31 Ja-Mr '62.
(MIRA 15:10)

1. Donetskii zavod khimicheskikh reaktivov.

(Flotation—Equipment and supplies)

KUSHNIR, M. M.

Kinetics of coprecipitation of a mixture of iron with calcium hydroxide from caustic alkali solutions. Ukr. khim. zhur. 28 no.3:409-411 '62. (MIRA 15:10)

1. Zavod khimicheskikh reaktivov, Donetsk.

(Iron) (Calcium hydroxide)
(Precipitation(Chemistry))

KUSHNIR, M. M.

Content of iron impurities in sodium sulfide solutions depending
on various factors. Ukr. khim. zhur. 28 no.5:648-650 '62.
(MIRA 15:10)

1. Donetskiiy zavod khimicheskikh reaktivov.

(Sodium sulfide) (Iron)

SKAZHENIK, O.K.; KUSHNIR, M.M.; PYSHNAYA, Ye.O.

Developing the method for the preparation of potassium nitrate.
Prom. khim. reak. i osobo chist. veshch. no.1:6-7 '63.

(MIRA 17:2)

KUSHNIR, M.M.

Preparation of electrolytes for alkaline storage batteries.
Khim. prom. [Ukr.] no.2:77-78 Ap-Ie '63. (MIRA 16:8)

1. Donetsk zavod khimicheskikh reaktivov.

KUSHNIR, M.M.

Removal of chloride impurities from barium permanganate. Ukr.-
khim.zhur. 29 no.1:109 '63. (MIRA 16:5)

1. Donetskii zavod khimicheskikh reaktivov.
(Barium permanganate) (Chlorides)

KUSHNIR, M.M.

Mechanism of coprecipitation of iron impurity with calcium
hydroxide in caustic alkali solutions. Zhur. prikl. khim.
36 no.10:2127-2132 0 '63. (MIRA 17:1)

KUSHNIR, M.M.

Purification of ammonium chloride by removing iron impurities.
Ukr. khim.zhur. 29 no.9:995-998 '63. (MIRA 17:4)

1. Donetskii zavod khimicheskikh reaktivov.

KUSHNIR, M.M.

New method for the production of sodium permanganate. Khim.
prom. [Ukr.] no.1:79 Ja-kr'63 (MIRA 17:7)

1. Donetskii zavod khimicheskikh reaktivov.

KUSHNIR, M.M.

Removal of iron impurities from ammonium chloride. Ukr. khim.
zhur. 30 no.4:410-414 '64. (MIRA 17:6)

1. Donetskii zavod khimicheskikh reaktivov.

KOYEN, I.Ya.; KUSHNIR, M.M.

New mechanized extractor for stumpwood chips. Gidroliz. i
lesokhim. prom. 16 no.7:27-28 '63. (MIRA 16:11)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy
leskhimicheskoy promyshlennosti.

RUZHENKO, M.M.

Removal of iron from oxalic nitrate. Ukr. zhiv. khim. 29:14, 196;
1107-1108 '64. (Ukr. 12:11)

1. Kuznetsov, P.I. Khim. zhiv. khim. 29:14, 196.

L 23517-65 EWT(m)/EWP(b)/EWP(t) IJP(o) JD

ACCESSION NR: AP4047119

S/0080/64/037/010/2146/2150

AUTHOR: Kushnir, M. M.

TITLE: The production of pure cadmium, zinc and lead sulfides

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 10, 1964, 2146-2150

TOPIC TAGS: cadmium sulfide, zinc sulfide, lead sulfide, production, synthesis, commercial production

ABSTRACT: It was found possible and expedient to produce Cd, Zn and Pb sulfides from the corresponding oxides by reaction with $(\text{NH}_4)_2\text{S}$ in the presence of ammonium acetate as catalyst. Cadmium oxide, zinc white or litharge was mixed with nitric and acetic acids, an excess (30% with respect to the sulfide) of a 25% solution of ammonium sulfide was added, and the product was filtered and dried. Ammonium nitrate catalysed the reaction, but 8-12 g/l of ammonium acetate in the reaction mixture gave a more stable product. 97% pure CdS was obtained by this method. The ZnS contained ZnO but was essentially purified of sulfates and

Cord 1/2

L 23517-65

ACCESSION NR: AP4047119

alkali and alkaline earth metals. The same basic process and apparatus can be used economically for the commercial synthesis of good quality Zn and Pb sulfides. Orig. art. has: 8 tables and 3 equations.

ASSOCIATION: Donetskiiy zavod khimicheskikh reakt ov (Donets Chemical Reagents Plant)

SUBMITTED: 15Oct62

ENCL: 00

SUB CODE: 1C, 6C

NO REF SOV: 004

OTHER: 000

Card 2/2

KUSHNIR, M.M.

Production of the pure sulfides of cadmium, zinc, and lead.
Zhur. prikl. khim. 37 no.10:2146-2150 O '64.

1. Donetskii zavod khimicheskikh reaktivov.

(MIRA 17:11)